

### 20.0 SUMMARY AND CONCLUSIONS

This section provides a summary of the primary elements of the NICO Cobalt-Gold-Bismuth-Copper Project (NICO Project) and impact predictions to the biophysical and socio-economic environments from the NICO Project. The NICO Project is anticipated to have significant positive impacts on the economics of the Tłı̄ch̄o communities, and positive and negative (but not significant) impacts on the social and cultural environments. Changes to the biophysical environment from the NICO Project are not predicted to result in significant adverse residual impacts to valued components of aquatic and terrestrial ecosystems, such as water quality, fish and fish habitat, listed and traditional use plants, caribou, and other wildlife. Consequently, the NICO Project is not predicted to have significant adverse impacts on the traditional and non-traditional use of these ecological services.

#### NICO Project Summary

- The NICO Project is a new Open Pit and underground cobalt-gold-bismuth-copper mine, and Mineral Processing Plant (Plant), which is 160 kilometres (km) northwest of Yellowknife, Northwest Territories (NWT) within the Marian River drainage basin. Fortune Minerals Limited (Fortune) will also construct a 27 km all-season access road (NICO Project Access Road [NPAR]) that is expected to join the Proposed Tłı̄ch̄o Road Route from Behchokö to Gamèti.
- Fortune considered traditional and scientific knowledge in the design of the NICO Project, and incorporated environmental design features and mitigation to remove or limit effects to the environment. Environmental design features and mitigation include engineering design elements, environmental best practices, management policies and procedures, and social programs. For example, the location of the Co-Disposal Facility (CDF) was altered to avoid fish habitat and the facility will contain and limit the exposure of acid generating Mine Rock.
- Fresh water for the NICO Project will be obtained from Lou Lake and treated effluent will be discharged to Peanut Lake. The water management system has been optimized in terms of internal recycling within the Plant, thickening of the tailings, and high level of reclaim water from the CDF back to the Plant. This design has resulted in water withdrawal that is about 10 times less than initially predicted in the Class A Water License Application, which has also resulted in reduced discharge volumes.
- An ion exchange Effluent Treatment Facility (ETF) will be designed to reduce concentrations of aluminum, ammonia, antimony, arsenic, cadmium, cobalt, iron, lead, selenium, and uranium. The design assumes that water will be treated 12 months per year, and the end of pipe effluent treatment goals are based on the site-specific water quality objectives.
- Fortune will not proceed with construction of the NICO Project until there is confirmation that the Tłı̄ch̄o road will be built and a schedule has been approved. Construction of the NICO Project is anticipated to take 12 months but could extend to 18 months depending on the timing of Tłı̄ch̄o road construction. Initial construction will focus on the NPAR to allow for the transportation of mine infrastructure building materials to be transported to the site. Stream crossings for the NPAR will involve the use of culverts, except for the Marian River, which will involve the installation of a bridge. The Airstrip will be built if access is required during construction when use of the existing winter road is no longer viable.

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- Progressive reclamation will occur throughout the operation of the NICO Project, which is expected to be 18 years. A combination of underground and Open Pit mining will occur during the first 2 years of operations. Mining will switch to Open Pit for Years 3 to 18 of operations. Ore processing at the NICO Project will be limited to crushing, grinding, and flotation consisting of primary and secondary stages to produce bulk concentrate. A total of 65 000 tonnes per year will be shipped via truck from the NICO Project. Final processing of the ore will be completed at the Saskatchewan Metals Process Plant in part to reduce the use of chemicals at the NICO Project, which was a primary concern for First Nation communities.
- The tailings and Mine Rock CDF is located immediately north of the ore body and portal in close proximity to the Plant. The CDF will be developed on gently sloping ground (less than 1 percent (%) gradient) in a sub-watershed of Nico Lake, incorporating the Grid Pond and Little Grid Pond wetlands. The configuration of the facility is developed to deposit the tailings and Mine Rock within the natural topographic highs of the ridges surrounding the CDF. The following benefits are produced by the co-disposal of tailings and Mine Rock.
  - The CDF was designed to be lower than the surrounding hills to mitigate potential visual impacts from Hislop Lake.
  - Reduction in footprint area: About 35.5% of the thickened tailings are anticipated to fill the void space of the Mine Rock, reducing the total volume of the wastes and the area of disturbance.
  - Maximization of the rate of consolidation of the tailings: The coarse Mine Rock will act as a drainage path for tailings consolidation water.
  - Stability improvements: The presence of Mine Rock will increase the overall stability of the facility, reducing operational and post-closure risk of the facility.
  - Reduction in acid generation potential and metal leaching: Filling of the Mine Rock void space with thickened tailings will tend to maintain saturation and reduce the rate of oxygen ingress into the co-disposed mass, thus reducing the rates of sulphide oxidation and acid generation. The resulting decrease in flow rates through Mine Rock is also expected to reduce the rate of metal release.
  - Dust control: The co-disposal will reduce wind/water erosion. The surface area of tailings exposed to wind/rainfall will be reduced by placing the tailings in cells. The tailings disposal cells will also be covered with new layers of Mine Rock shortly after they are filled.
- Closure will occur within 2 years after mining has been completed. Most of the site infrastructure will be removed during that time. Closure of the CDF is designed to limit wind and water erosion, and effectively shed water and reduce infiltration. The selected cover design for the top surface of the CDF will comprise 2 layers of soil: 0.5 metres (m) of overburden on surface underlain by 0.25 m of sand. The lower layer will act as a "capillary break", which will prevent the vegetation on the surface from uptaking arsenic and other metals from the underlying tailings.
- The final closure condition will not be reached until approximately 120 years after closure (i.e., post-closure), which is the time required for the Open Pit to fill with water. Once at full supply level, water from the Flooded Open Pit will be allowed to flow to the passive Wetland Treatment System, if water quality is

acceptable. If the quality of water is not acceptable, then the water will be treated more actively with a number of options before being released to the receiving environment.

### Impacts from Air, Dust, and Noise Emissions

- Air modelling results predict that maximum concentrations of sulphur dioxide and carbon monoxide are in compliance with the applicable ambient air quality guidelines for all averaging periods. The maximum predicted 1-hour and 24-hour concentrations for nitrogen dioxide outside the NICO Project Lease Boundary are in compliance with the applicable ambient air quality guidelines. The predicted annual average nitrogen dioxide concentration exceeds the applicable standard, and maximum concentrations are expected to extend 1.7 km the center of the NICO Project, or 250 m from the NICO Project Lease Boundary.
- The maximum predicted 24-hour particulate matter concentration exceeds the applicable standard outside the NICO Project Lease Boundary for as many as 39 days in a year, approximately 1.7 km from the center of the NICO Project. The predicted maximum 24-hour and annual average total suspended particulates (TSP) concentrations outside the NICO Project Lease Boundary exceed the applicable air quality standard. The 24-hour concentration is above the standard for a maximum of 121 days per year. For TSP, the maximum predicted dust concentration rate will occur within 1.7 km from the NICO Project centre and extend 500 m from the NICO Project Lease Boundary, but TSP concentrations will be below recommended guidelines outside of the local study area. These estimates are conservative because the models, and their inputs, are designed to conservatively model concentration and deposition values, so that practitioners can apply model results with the understanding that effects are likely to be over-estimated. Therefore, there is a high degree of confidence that actual concentrations will be less than modelled results. Modelling was completed using the following methods and assumptions:
  - used the maximum emission rates from the NICO Project from operating Year 4, when other years will have lower emission rates;
  - assumed that equipment will be operating at maximum capacity on a continuous basis; and
  - assumed that there would be no natural mitigation of dust during the winter from precipitation and snow.
- Concentrations of sulphur dioxide, carbon monoxide, and nitrogen dioxide are lower than the standards during the construction and operation of the NPAR and the use of the Proposed Tłı̄chq̄ Road Route. Concentrations of particulate matter are predicted to be higher than the standards during the construction of the NPAR but lower than the standards during the use of both the NPAR and Proposed Tłı̄chq̄ Road Route. Concentrations of TSP are predicted to be higher than the standards during the construction and operation of the NPAR and the use of the Proposed Tłı̄chq̄ Road Route.
- A human health risk assessment was completed to determine how the predicted changes in air quality parameters could potentially affect human health. The exposure doses were calculated using the maximum predicted concentrations of contaminants of potential concern (COPCs) during the operations phase of the NICO Project, which had the highest predicted concentrations. Based on the calculated exposure doses, it is anticipated that atmospheric emissions from the NICO Project will result in negligible changes to human health.

- The human health risk assessment also predicted negligible changes to COPC concentrations in caribou and fish tissue as a result of the NICO Project. Therefore, negligible changes to human health as a result of ingestion of caribou and fish are predicted.
- The recommended maximum value for the nighttime noise level for undeveloped areas is 40 dBA. Modelling results show that noise predictions slightly exceed benchmarks for mine operations, but are below benchmarks for the NPAR and Airstrip. Similar values for the NPAR are predicted for NICO Project vehicles travelling along the Proposed Tłjchq Road Route. The maximum distances for NICO Project-related noise to attenuate to background levels are 3.3 km for mine operations, 0.9 km for vehicles along the NPAR and Proposed Tłjchq Road Route, and 26 km for the Airstrip. However, the frequency of aircraft traffic at the NICO Project is expected to be limited to a maximum of 4 round-trip flights per week during construction and for emergency purposes during operation. The duration of the impact from aircraft noise is expected to short-term (less than 5 minutes).

### Habitat Losses

- The area that will be disturbed during construction and operation is 485 hectares (ha) including 351 ha of uplands, 80 ha of wetlands, 33 ha of burn, and 7 ha of aquatic habitat. At closure, 402 ha will be reclaimed while 84 ha will not be reclaimed. Non-reclaimed land is associated with residual disturbances including the Flooded Open Pit, constructed wetlands, Seepage Collection Ponds, Surge Pond, and excavated ditch.
- Although physical loss of fish habitat will result from the water intake and diffuser structures established in Lou Lake and Peanut Lake, the use of environmental design features will create new fish habitat and provide adequate compensation to offset any harmful alteration, disruption, or destruction of existing fish habitat. The gains are expected given the proposed placement of aggregate and rip-rap over the pipes. Gravel, cobble, and boulder substrate are key habitat features for many coldwater fish species in lakes.

### Impacts to the Aquatic Environment

- Windborne dust and air emissions from NICO Project facilities will result in increased deposition of dust in the surrounding area. However, residual effects of total suspended solids from dust and particulate deposition are expected to be localized in the immediate vicinity of the NICO Project (i.e., Nico and Peanut lakes) and temporally restricted to the weeks during and after freshet during construction and operation phases. It is expected that the sediment (total suspended solids) will settle out of the water column fairly quickly. Also, the high water levels, wave action, and currents will move the sediment off any sensitive habitat areas in the nearshore areas of lakes (e.g., spawning shoals or vegetation) into the deeper main basin of the lakes, which occurs naturally.
- A change in trophic status from increases in phosphorus concentrations is not predicted for Nico, Peanut, or Burke lakes. However, nutrient predictions for these lakes show increases in nitrogen from the NICO Project discharge. Although the lakes are not nitrogen-limited, the increase in nitrogen may cause an initial summer increase in phytoplankton biomass in Nico Lake, and to a lesser extent in Peanut Lake. However, the initial biomass increases will likely stabilize after a couple of years once the lakes become completely nitrogen-saturated. Furthermore, proportional increases in zooplankton biomass (and benthic invertebrate biomass) will likely be even lower than that of phytoplankton because the energy transfers between trophic levels are inefficient.

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- The existing water quality in the local study area includes natural high levels of arsenic and iron in Nico Lake. With the application of the NICO Project, metal concentrations in water (total and dissolved) generally remain below site-specific water quality objectives. Exceptions are total aluminum and iron concentrations, which are predicted to exceed objectives. Elevated total aluminum concentrations are predicted for operations and closure in Nico Lake, construction through to closure in Peanut Lake, and during operations and closure in Burke Lake. Elevated total iron concentrations are predicted for operations and closure in Nico Lake, and for the operation phase in Peanut Lake.
- The primary input source for most metals in Nico and Peanut lakes will be in particulate form, as part of the runoff and accumulation of dust (i.e., TSP deposition) produced from the NICO Project. However, the effects of metals, such as aluminum and iron, generally occur under low pH condition and the pH values of lakes within the local study area are anticipated to remain neutral-to-alkaline for the duration of the NICO Project.
- It is predicted that water quality in Burke Lake and downstream reaches of the Marian River should remain within the range of baseline conditions for TSS, nutrients, and metals.
- Metal concentrations are expected to be below site-specific water quality objectives at post-closure. This prediction is consistent with regional trends in water quality and sediment chemistry pre- and post-fire that clearly shows rapid responses of the aquatic habitat following disturbance.
- With the application of the NICO Project, it is anticipated that changes to concentrations of metals and total suspended solids may affect the condition of the aquatic ecosystem for Nico Lake and Peanut Lake, but that the fish abundances and the general condition of the lakes should remain within the range of baseline values. Effects should be largely restricted to operation and closure phases, and to Nico Lake.
- Tolerant species (e.g., northern pike and white sucker) characterize the existing assemblages of lakes in the local study area. Increased angler access from the NPAR may affect population sizes of sport fish. However, angling opportunities for traditional and non-traditional users should remain within the range of existing conditions for Hislop Lake and the Marian River (i.e., the regional study area). It is predicted that only a few anglers will take advantage of increased access to Hislop Lake (i.e., changes should be undetectable). If angling pressures increase to the point where it is expected to affect fish populations, then the impacts could be mitigated through changes in the sport fishing regulation for the affected lake(s).

### Impacts to the Terrestrial Environment

- The impact from the NICO Project on terrain and soil distribution will be confined to the NICO Project footprint. Most of the impacts will occur during the construction phase, although activities through the life of the NICO Project will continue to change terrain and soil distribution across the landscape. The maximum area that will be disturbed during construction and operation is predicted to be approximately 485 ha. At closure, the extent of the effect on terrain and soil quantity will consist of 402 ha of reclaimed land and 84 ha of non-reclaimed land (i.e., residual ground disturbance). Non-reclaimed land is associated with the Flooded Open Pit, constructed wetlands, Seepage Collection Ponds, Surge Pond, and excavated ditch. These areas will become new soil map units as the Open Pit will eventually fill with water and the constructed wetlands, Seepage Collection Ponds, Surge Pond, and excavated ditch will also contain water.

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- Changes to soil quality are attributed to NICO Project activities that include physical, biological, and chemical changes that could occur during soil storage in stockpiles, admixing of soil materials, compaction, and soil erosion. The geographic extent of the impact from these activities will be limited to the NICO Project footprint. The magnitude of the residual changes in physical, biological, and chemical properties of soils, and the admixing, compaction, and erosion from the NICO Project on soil quality is predicted to be within the range of baseline values and reversible at the end of closure.
- Direct impacts to vegetation from the NICO Project (including the NPAR) are local in geographic extent. The impacts to vegetation include associated changes to listed plant species, traditional use plants, and economic use plants. Overall, the magnitude of impacts to plant populations and communities is expected to be low. An impact of moderate magnitude is predicted for the bedrock open conifer land cover type. Although reclamation will be integrated into mitigation and management plans for the NICO Project, subarctic terrestrial ecosystems are slow to recover following disturbance; therefore, the duration of these changes should be long-term and are predicted to be reversible within 50 to 75 years following closure. The results indicate that the NICO Project should not result in significant adverse impacts to the persistence of plant populations and communities, including listed plant species, and the use of traditional and economic use plants.
- Direct impacts from habitat loss and fragmentation from the NICO Project and other previous, existing, and reasonably foreseeable developments on the Bathurst caribou herd are predicted to be negligible. In addition, the NICO Project is expected to cause indirect changes to the amount of different quality habitats for the Bathurst caribou herd. These changes are expected to result from the combination of noise and other sensory disturbances from the NICO Project, and are regional in geographic extent. Based on the estimated zone of influence from the literature, habitat quality is predicted to decrease within 15 km of the anticipated mine site of the NICO Project, within 5 km of the NPAR, and 1 to 5 km for other developments in the winter range.
- The magnitude of the decrease in good and high quality habitats from the NICO Project (including the NPAR) is predicted to be negligible. Relative to reference conditions (no development), cumulative indirect impacts to winter range habitat from the NICO Project, and previous, existing, and reasonably foreseeable future developments are expected to be of low magnitude and beyond regional in geographic extent. Indirect impacts from the NICO Project and existing and future roads will be continuous during operations, while indirect impacts from the NPAR and existing winter roads during construction will be isolated or periodic (i.e., limited to one or more winter seasons).
- The incremental impact to the energy balance of a female caribou from the NICO Project is predicted to result in a negligible magnitude decrease in the fall calf:cow ratio relative to a reference condition. Cumulative impacts to the energy balance of female caribou from encountering 40 disturbance events on the winter range is predicted to have a low magnitude impact on the fall calf:cow ratio relative to a reference condition. The frequency of impacts from human disturbance on the Bathurst herd is anticipated to be continuous relative to the life history of caribou (i.e., impact from human disturbance events on calf recruitment is continuous from one year to the next). In contrast, decreases in the calf:cow ratio were predicted to be of moderate and high magnitude for moderately severe and severe spring conditions, respectively (i.e., deep and/or hard snow). However, the frequency of impacts on the population from moderately severe and, in particular, severe spring conditions is expected to be periodic.

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- Impacts on the abundance and distribution of the Bathurst caribou population from changes in habitat quality, movement, behaviour, energy balance, and calf production from NICO Project activities are expected to be long-term and reversible within 2 to 3 life spans for caribou (i.e., 5 to 10 years after closure).
- It is expected that the incremental and cumulative increase in the harvest of caribou associated with improved access from the NPAR and Proposed Tłı̄ch̄ Road Route will be within or approach the upper limits of baseline harvesting values (low to moderate magnitude). The duration of impacts to caribou from increased access is predicted to be permanent as these roads will likely be maintained well beyond the temporal boundary of the assessment (i.e., more than 21 years [construction through closure]).
- Changes to the abundance and distribution of the Bathurst caribou population from development may negatively influence the traditional and non-traditional harvesting of caribou in the winter range. Based on the analysis of changes to habitat, female energetics, and increased access, the magnitude of changes to the harvesting potential of caribou from the incremental and cumulative impacts from the NICO Project and other developments are expected to be low and moderate, respectively. Overall, the incremental and cumulative changes from the NICO Project and other developments are not predicted to have significant adverse impacts on the persistence of the Bathurst caribou herd.
- The magnitude of incremental impacts associated with habitat loss and fragmentation from the NICO Project footprint on moose populations is predicted to be negligible. The magnitude of direct habitat impacts from the NICO Project footprint on marten, muskrat, upland breeding birds, waterbirds, and raptors is predicted to be low. Cumulative impacts of direct habitat loss and fragmentation from the NICO Project and previous, existing, and reasonably foreseeable future developments is expected to be of negligible and low magnitude for moose and other wildlife, respectively.
- Development of the NICO Project is expected to cause indirect changes to the amount of different quality habitats for wildlife populations in the region. Based on estimated zones of influence from the literature, habitat quality is predicted to decrease within 1 to 2 km of the NICO Project and other developments in the effects study areas. These changes are expected to result from the combination of noise and other sensory disturbances from the NICO Project, and are local to regional in geographic extent.
- Overall, the NICO Project is predicted to result in negligible to low magnitude impacts on the quality habitat for moose, marten, muskrat, upland breeding birds, waterbirds, and short-eared owl. Relative to reference conditions (no development), cumulative indirect impacts to habitat from the NICO Project and previous, existing, and reasonably foreseeable future developments are expected to be of moderate magnitude for moose and marten, and low magnitude for muskrat, upland breeding birds, waterbirds, and short-eared owl (and other raptors). Indirect impacts from the NICO Project and roads will be continuous during operations while indirect impacts from the NPAR and existing winter roads during construction will be isolated or periodic (i.e., limited to one or more winter seasons). Impacts on the abundance and distribution of wildlife populations from changes in habitat quality, movement, and behaviour from NICO Project activities are expected to be reversible within 5 to 10 years following closure (long-term).
- Current harvest numbers indicate that harvesting pressure is unlikely to be a limiting factor for moose, marten, and muskrat populations in the area surrounding the NICO Project. Should harvesting on the Proposed Tłı̄ch̄ Road Route or NPAR reach a level of concern, the Tłı̄ch̄ Government or the Wek'èezhii Renewable Resources Board could enact regulations to control the harvest. As such, it is expected that the

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incremental and cumulative increase in the harvest of wildlife from the NPAR and Proposed Tłjchq Road Route will be within the range or approach the upper limits of baseline values (low to moderate magnitude). The duration of effects to wildlife from increased access is predicted to be permanent as these roads<sup>1</sup> will likely be maintained well beyond the temporal boundary of the assessment (i.e., more than 21 years [construction through closure]).

- Changes to the abundance and distribution of wildlife populations from development may negatively influence the traditional and non-traditional harvesting of some wildlife in the region. Based on the analysis of changes to habitat quantity and quality and increased access, the magnitude of changes to the harvesting potential of moose, marten, muskrat, waterbirds, and upland game birds (e.g., grouse) from the incremental and cumulative impacts from the NICO Project and other developments are expected to be low and moderate, respectively. Overall, the incremental and cumulative changes from the NICO Project and other developments are not predicted to have significant adverse impacts on the persistence of wildlife populations.
- A wildlife health risk assessment was completed to evaluate the potential adverse effect to individual animal health associated with exposure to chemicals from the NICO Project. Sources of chemicals considered in the assessment include fugitive dust, air emissions, treated effluent, and surface water runoff and seepage. The potential for effects to the health of wildlife evaluated for the NICO Project included changes in air, water, soil, and vegetation quality.
- Based on the calculated exposure ratios it is anticipated that atmospheric depositions and surface water discharges from the NICO Project will result in negligible health risks to caribou and other wildlife. The exposure ratios were calculated using the maximum predicted concentrations of contaminants of potential concern, which were predicted during closure and post-closure phases of the NICO Project. Risk was considered to be negligible if calculated exposure ratios were less than target risk levels of 1, which is consistent with standard practice in risk assessment. The exposure ratios for caribou and other wildlife directly and indirectly exposed to chemicals were orders of magnitude less than 1. Because no unacceptable health risks to wildlife are anticipated during these phases of the NICO Project, it is predicted that wildlife health risks will also be negligible during the construction and operations phases of the NICO Project (i.e., COPCs, are anticipated to be present at lower concentrations during construction and operation). Consequently, these pathways were determined to have no linkage to effects on the persistence of caribou and other wildlife populations, and continued opportunity for traditional and non-traditional use of wildlife.
- Caribou may be exposed to similar COPCs at other mining sites including past developments such as historic remediated and non-remediated site (i.e., Rayrock and Colomac mines) in northern Canada because they migrate. Even with the conservative assumptions made in the exposure assessment and toxicity assessment that may ultimately over-estimate risk, the potential for cumulative health effects from the NICO Project on caribou are considered negligible

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<sup>1</sup> Note: NICO Project Access Road may be removed if the Tłjchq Government make the request.



### Impacts to the Socio-economic Environment

- Residual impacts from the NICO Project on the economy of the NWT are predicted to be positive and significant. Impacts on local employment, family disposable income, education, and training are also positive, but not expected to be significant. Negative and non-significant residual impacts are predicted for changes to in-migration, family cohesion, use of traditional language, and cultural areas. No impacts are predicted to archaeological sites.
- The territorial gross domestic product (GDP) and government revenues (taxes, royalties) will increase as a result of the NICO Project.
  - During construction the NICO Project will annually add about \$22 million to the territorial GDP and \$8 million in federal and territorial government revenues.
  - Total GDP for the construction phase will amount to about \$22 million (\$17 million direct).
  - During the 2-year Underground and Open Pit mining operations period, the NICO Project will annually add about \$113 million to the territorial GDP, and \$24 million in federal and territorial government revenues.
  - During the 16-year Open Pit mining operations period, the NICO Project will annually add about \$129 million to the territorial GDP, and \$21 million in federal and territorial government revenues.
  - Total GDP for both operations phases will amount to about \$2.3 billion (\$1.9 billion direct).
  - Annual mining royalties will amount to \$5.4 million, accumulating about \$99 million over the operational phase.
- The NICO Project will have a positive impact on employment and business levels, as well as labour income. It will increase local and regional employment, including up to 231 annual full-time equivalent (FTEs) jobs during construction, up to 233 annual FTEs during first 2 years of operations, and up to 127 annual FTEs for the rest of the operations. Many of these will be filled by already trained workers from other mines, but first preference for hiring will go to the Tłı̄ch̄q communities and other Aboriginal communities.
- The long-term impact of the NICO Project on local businesses also will be positive. Over the past decade, local businesses have adjusted their practices and human resource policies to attract and retain staff. The NICO Project will allow businesses to continue and even expand their operations. The NICO Project will also create several jobs and contracts that could be taken up by NWT residents. There should be a low to moderate increase in opportunities for education and training associated with the NICO Project, but from a skills and experience gained perspective, the contribution to the labour force will last beyond the life of the NICO Project.
- As a result of the increased labour income, the NICO Project is expected to increase family and disposable income in the local study area and NWT. Likewise, the NICO Project may continue the trend of reduced need for social assistance and other government transfers as a result of stable, year-round employment.
- Overall, the NICO Project will have mainly a positive (but also negative) impact on public infrastructure and services. Some of the improvements to public infrastructure; however, such as the NPAR, may continue post-closure. After the closure phase (approximately 5 years after mine operations have stopped), the

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NPAR and Airstrip (if built) will no longer be required for the NICO Project. Fortune will offer the NPAR and Airstrip to the Tłıchq Government. If not wanted, then these facilities will be closed and reclaimed by Fortune.

- Given the limited accommodation in the Tłıchq communities and the fact that these communities consist mainly of the Tłıchq, it is unlikely that non-Tłıchq people will take up residence. The camp at the NICO Project work-site is also intended to reduce the possibility of in-migration. Due to a strict camp work environment, the relatively small number of employees and contractors, and the limited availability of housing, the potential for in-migration is considered low.
- For people working at the NICO Project there will be a reduction in time spent with family and carrying out traditional activities. The use of traditional language may also decrease, but mitigation such as encouraging use of traditional languages at the worksite, when safe to do so, is expected to limit the erosion of the use of traditional language.
- Construction and operation activities of the NICO Project avoid known heritage resources in the local study area. No known heritage resource sites occur within the anticipated mine site and NPAR. Construction and operation activities of the proposed NICO Project will avoid known physical heritage resources in the vicinity of the Îdaà Trail and Hislop Lake. Although, the Îdaà Trail is bisected by the NPAR, no impacts to heritage resources sites are anticipated.
- Users of the Îdaà Trail will be able to hear mine operations and traffic along the NPAR at portions of the Îdaà Trail southwest of the NICO Project, but not along portions of the Îdaà Trail along the southeast corner of Hislop Lake or northwest of the NICO Project. Users of the Îdaà Trail will be able to hear incoming and outgoing aircraft up to 26 km from the NICO Project site. Aircraft are anticipated to be used for medical emergencies and the transport of some goods to site during operations (i.e., the annual volume of aircraft traffic is expected to be low). Noise associated with the Airstrip will be infrequent and limited to take-off and landings (about 5 minutes).
- The CDF was designed so that it would not be higher than the surrounding hills and would not be visible from Hislop Lake or the Îdaà Trail. Given that the Îdaà Trail follows the Marian River west of the NICO Project it is predicted that the NICO Project will not be seen from the Marian River; however, the NPAR will pass over the Marian River and will be visible from river at the point of crossing.